

## Re: [announcement] SYSAPI and SYSSVC for Windows

**Source:** <http://coding.derkeiler.com/Archive/Ada/comp.lang.ada/2003-12/0563.html>

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"Georg Bauhaus" <[sb463ba@11-hrz.uni-duisburg.de](mailto:sb463ba@11-hrz.uni-duisburg.de)> wrote:

> :> *Hm. So is it not true that they more or less have woven the shell and*

> :> *the graphics subsystem into one thing?*

> :

> : *Huh?? No.*

>

> *I checked, not the shell but the Executive. From user mode to*

> *kernel mode,*

> [http://msdn.microsoft.com/archive/default.asp?url=/archive/en-us/dnarwbgen/html/msdn\\_movuser.asp](http://msdn.microsoft.com/archive/default.asp?url=/archive/en-us/dnarwbgen/html/msdn_movuser.asp)

So what?!

Plus, you're talking about NT 4.0, which is a pink flying elephant that doesn't exist anymore. ;)

I couldn't care less if GDI runs in kernel mode.

A graphics card driver can tear down the system anyway, whether GDI is in user or kernel mode. Or whatever you were alluding to.

> *Yes. BTW, are 3D GUI objects a Microsoft invention?*

No, they've existed long before on various experimental UIs.

> *Then there is a patent opportunity, so free OS communities will*

> *have to consider 4D GUI components to stay competitive :-)*

Don't make fun of it! 3D user interfaces will be considered "normal" in a couple of years.

I still remember when people got laughed at for talking about graphical user interfaces. "All you need is a text terminal!"

Technically, the 3D thing comes automatically with DirectX 9 or higher. They've eliminated DirectDraw, all you can do is create

textured rectangles to get a similar effect. ;)

Many computers already have hardware-accelerated 3D graphics, even business computers which are often sold with state-of-the-art hardware, whether the customer realizes it or not, and hence there'll be a point in the future in which it can be safely required.

In my own OS project (DELOS), I will also experiment with 3D user interfaces.

Other GUI research groups (apart from Microsoft) have come up with some new 3D GUI paradigms, but they aren't well-evolved yet.

You don't really know what research is or has been going on in that area. I've already seen 3D GUI apps on SGI's over a decade ago, so it's not uncommon for software developers to invent things like that, I guess.

Things really get interesting when users have real 3D projectors available (as in shutter glasses, or 3D laser-to-vapor projectors, or retina projectors, which all exist already).

But also for regular 2D displays, 3D user interfaces might be interesting.

For example, imagine windows could have a flip side, or would be cubes or other bodies. With a flip side, in a word processor, for example, you could literally turn the pages of your document and write on every front and back page.

Or you could move windows from back to front or sideways or out of view. Or you could be like in a room or sphere and rotate the view and hence get to have more things open at the same time.

For modelling software, you could eliminate most of the window boxing and three-side views, you could work on the object directly, of sorts.

Just to project a 2D surface into 3D space alone doesn't make a 3D user interface. (that's related to the results I've seen of some 3D UI working group, which did just that)

For all those applications, a 3D GUI paradigm needs to be created that makes sense. If I get around to it, I will also do some research.

> : *New in XP is also the .NET framework, which permits Java-like*  
> : *GUI programming, but it's mainly targeted at client/server operation,*  
> : *as it seems.*  
>  
> *In particular, it also looks like an embraced CORBA.*

So does OLE or COM or DCOM, for which you also need IDL compilers.

CORBA has been an effort that was never fully integrated into an OS, because they all came up with their own designs (for better or worse).

Nonetheless, CORBA is available for all those OSes.

(btw, Microsoft has always been sitting in the CORBA standards group, so that's not really a surprise)

- > *They sure will help restricting copying. I'm not saying that distributing*
- > *copies to circumvent payment is a nice thing to do, but I think "secure"*
- > *software expresses the above attitude towards customers: "they are thieves,*
- > *this won't change, we must use force." Sounds like defamation to me.*

Software piracy exists, so why should they not do something about it?

Microsoft doesn't imply anything. They said they will permit to run all kinds of apps on the next generation Windows kernel. So whether you use the secure or unsecure subsystem is your business alone.

- > *: Everything will be as it was before, except that there will be a new*
- > *: subsystem providing unsecure operation, while the core system will*
- > *: become secure.*
- >
- > *Interesting wording, a little biased towards secure transactions*
- > *of money I guess?*

Yes, of course. I'm very interested in secure transactions of money. <vbg>

If Microsoft serves as the motor of the industry, then why not? If no-one else dares to play that role, then why should they not take it?

It will definitely create jobs. Software piracy never created any job.

- > *: Microsoft knows that people don't want to invest in*
- > *: all-new software. You can still use all of your old software, and*
- > *: no-one will snoop on your computer about it.*
- >
- > *Question is, can I still use my old real player 8 and listen to BBC?*
- > *Probably yes. Will I be able to watch an older US film online using*
- > *RP8 as "unsecure" software, after signing a pay-per-view contract?*

Yes, of course.

Microsoft are not dumb, they always knew how to pull the money out of our pockets, they are up for seconds! ;)

Microsoft is the last company on Earth probably who doesn't want to make money selling us new stuff.

As long as some people keep an eye on what they're doing and scream and ramble everytime they lift a finger, then all is well, and Microsoft bows to the wishes of the general public. ;)

I've once seen a report about Microsoft in which they showed how they always fear losing market shares and customers, thinking they're going out of business any day. That's the right way to lead a company: Always think every day could be your last! ;)

Microsoft is definitely a much friendlier company than IBM for example.

IBM stopped the development of OS/2 and Visual Age for C++, that's just like someone throwing all their gold out of the window and laughing merrily that they've relieved themselves of such burden.

> : *Microsoft also knows that many people use pirated software on their*  
> : *computers. However, that's in the responsibility of those people,*  
> : *and Microsoft knows sales would drop dramatically if they would*  
> : *disallow the use of such.*  
>  
> *Yes and No. Are they disallowing the use of a FAT file system unless*  
> *there is a license agreement,*  
> *<http://www.microsoft.com/mscorp/ip/tech/fat.asp> ?*

The article is about licensing the intellectual property rights and patents of the FAT file system.

This has the advantage that they can give licensees the correct specification of the FAT format, which is often incorrectly implemented by third-party software.

In the case of device manufacturers that pay for FAT-preformatted media, I think the cost is negligible.

In the case of free or open-source software like GNU/Linux, this would mean removal of FAT file system support (which isn't really a great loss). (Or a negotiation about a special license for the GNU/Linux or other free OS projects. Perhaps if it's not open-source it might be ok, which would simply mean some chunk of binary code to be included for PC-based systems.)

I wonder, if this also applies to boot blocks, which are generally in FAT format. (perhaps Microsoft's law department didn't even think of that <g>)

> : *You forget about WinAMP and all the free software on the market.*  
>  
> *This excludes the server side from view.*  
> *What software is used to produce the streams?*

There's also free streaming software, like Ogg Vorbis.

- > *What software is used to produce the media content suitable for*
- > *non-MS/non-Real players?*

See above. Plus, anyone can create an independent streaming format and write a set of client/server tools for it.

- > *Does it offer "secure" operation, that is D"R"M compatibility?*

DRM is already supported by Windows Media Player 9.

That barely anyone is using it shows you how much acceptance it got on the market. Perhaps this will change in a couple of years, but DRM does NOT prevent you from using unlicensed data.

(otherwise you couldn't listen to music or videos that you've created yourself, which would make no sense because all the hobbyist musician and filmmakers would break away along with all who have to create experimental content in the production process)

- > *: Even if Microsoft would provide only a secure Media Player (perhaps as*
- > *required by the movie and music industry, don't forget that Microsoft*
- > *has to cooperate with those), you could still use independent software.*
- >
- > *Aha! You may want to study what Jack Valenti has said about*
- > *what the internet is: a distribution channel for media content that*
- > *has to be secured from software pirates to "protect America's greatest*
- > *trade export".*

Of course the industry has an interest in protecting their rights.

You don't want everybody to drive with your own car too, do you?

- > *: The TCPA specification has changed a lot in the light of more or less*
- > *recent protests from consumers and the press.*
- >
- > *Good "Old Europe". (An interesting variation of a dictum about Europe*
- > *by US DoD officials not long ago.)*

Why, what did they say, the US DoD officials?

- > *: And hence, Microsoft*
- > *will not make the system a closed operation. In that case, no-one*
- > *would buy Windows, and that is definitely not in their market interest.*
- >
- > *But how many young people will continue to listen to music on CDs*
- > *when they have to buy each and every of them? How will this affect*
- > *Music Industry? To be continued...*

You might already have the answer: In the US, some record company already is making deals with universities and colleges to make music available there for free download (and target group screening purposes)

of course).

I think the music industry knows quite well how their markets work. They will have to find new ways to attract customers if the other ones aren't working anymore.

- > : *There are a lot of unemployed people, and software piracy is simply*
- > : *endangering jobs everywhere.*
- >
- > *...Interesting. I doubt that Microsoft would have grown that large*
- > *were it not for the widespread illegal copies of DOS and Word*
- > *(and that spread sheet software the name of which I cannot currently*
- > *remember).*
- >
- > *Without software piracy, and by analogy, music piracy, will those who*
- > *are thieves now become buyers then? Where will their money come from?*

It all depends on what you spend your money on. You can spend your money on software as much as you can spend it on your computer hardware. People often forget what they paid for their hardware.

Is it really that much to buy just the stuff you need?

At least in my case, it isn't. Despite I don't have much money, I have quite a good development machine at home with broadband internet access and all the software and development tools I need. For example, I use free software wherever possible, like GNAT for Ada, or a trial version of ObjectAda, I use StarOffice (which I got as a freebie licensed from my ISP) instead of Microsoft Office, and so on. For editing I use VIM, for graphics Paint or GIMP or IrfanView, for some other areas I use software that I've written myself, and so on. The only software that I had to buy were Windows XP and Microsoft Visual Studio .NET 2002, and everything else has been licensed thru my ISP or is licensed freeware. Recently I've rented a virus scanner and spam blocker for a year each, an interesting business model that I've had to check out.

Everything else, like music, videos and stuff has been properly licensed or bought. When I have downloads, I've downloaded them on sites where it explicitly allowed. My personal video recordings are marked as such and I don't pass them on.

So, as an individual person, I'm free from any unlicensed or pirated content or software. And it wasn't hard at all. I simply don't buy the stuff that I cannot afford, nor do I use it.

Companies can do the same, there are often volume licenses for companies that lower the price for every place of work, and there's generally lots of free software that can be used by companies.

To stress the marketing effect of pirated software or content does not change the fact that it is illegal, and that companies can sue

you for it when you get caught.

(I was once caught in my teen age, and that was enough for me to see that the benefits of piracy aren't worth the trouble! ;) )

- > *I don't think small compiler companies will always use dongles.*
- > *Is Comeau Computing a large company?*
- > *Don't know about RR Software. Do they use dongles?*
- > *I know of FLEXlm for site licensing for another Ada compiler, but not for single user licensing. I think ISE Eiffel uses license files a well.*

Well, some software manufacturers will see the need for dongles, and some don't.

- > *And: ACT produces Free Software, GNAT compiler and tools, which must still be a costly effort because it is an evolving compiler.*
- > *They don't use copy protection at all you could guess, other than the requirement that you may not take the compiler sources, rework them, sell the product and store the reworked sources away as private property. Where is the dongle? Will GNAT need "DRM" hardware to work in "secure" mode?*

GNAT is GPL'd and as such free licensed software.

That is, the license explicitly permits copying.

- > *: Imagine you take all your money*
- > *: and invest into the development of a compiler, and then you go home*
- > *: and a friend offers you a pirate copy of it. How would YOU feel?*
- >
- > *I wouldn't be surprised. But small companies usually have the time to talk to their prospective customers before they hand over a copy of their product.*

So you think talking to the customer will reveal whether they will make a pirate copy of it?

I don't know what planet you've been living on in the past decades, but that method can work only if they have only very few customers. And that usually implies a large price.

If you spend a couple million bucks on a piece of software, as a customer, then of course you make sure that it's not spread around like sliced bread.

But if you buy an off-the-shelf product for a couple of bucks, then "why not give a copy of it to your friend?"

But even customers paying large sums for software often give it away to fellow companies. If your software costs millions, this can mean millions worth of money that is missing in your

pocket. Hence the need for dongles or something similar, especially for small companies.

BTW, some companies developing free licensable software often make their money with support or consulting contracts.

> *In the long run the industry has grown.*

Of course, but they have to see the advantages as well.

> : *There are already some perfectly*

> : *legal online music shops that sell songs by professional artists*

> : *for a couple of cents each. So it IS possible.*

>

> *That is not true of your average artist at your avery online store.*

> *As cheap as ever.*

No, I was referring to DRM-supported music shops. You can play the music that you download only on your own computer and/or transfer it to recording devices.

> : *I think it's a matter of personal maturity whether you let*

> : *other people have their share of profits.*

>

> *Yes. Exactly. That is why I believe in honest business, not*

> *in threat, force, and costly safeguard.*

Unfortunately, not all people on the customer and/or manufacturer's side think like you.

I also handle my purchases responsibly. If I had an OS that was fixed to a particular machine, I would not buy it. Even Windows XP can be retargeted to a different computer if the current one breaks, or if you want to move it. And I expect it to.

Many people do make illegal copies of software and/or content, and the companies react accordingly, "punishing" all.

If you disagree with a company's policies, you can always decide not to use their products. (sometimes easier said than done, but it can be done as the whole GNU project shows)

> : *We're living in a*

> : *cooperative society after all,*

>

> *That's an interesting claim if you allow me to include "business"*

> *in "society". Is business cooperative, or competitive, or both?*

In a very profound sense, we're all dependent on one another.

In the case of a business, the customer might be dependent on the products or services of a business, while the business is dependent on the customer to buy them.

And dependency is a sort of cooperative endeavor.

Competition exists between businesses, but also cooperation.

> *Will a company invite competitors, or will they try to keep them out of projects? What does that say about "cooperative society"?*

When a company isn't successful with one path, it can choose another. There are literally unlimited possibilities of what people can do, right? If a company is not flexible enough to react to the market situation, then it will go bankrupt.

(when my employer went bankrupt in March, we were told this would be the normal way things go, just a regular business case)

It all depends on how you view the world around you: If you see everyone as your own personal enemy, then things will look difficult, right? Companies can be successful in competition as well as in cooperation. It really depends how the companies see themselves and the world around them.

For example, if you have an apparent competitor that "takes away your projects", then you could go and negotiate with them what projects you could do to alleviate their workload or how to help them to be even more successful. And if they don't want cooperation, then you could go on a different path, getting different projects, then you're out of that company's radar. Or you could create a war chest, figure out how to beat the competitor and begin your battle. It all depends on what *\_you\_* want.

> *And maturity?*

Mature would be cooperation on all levels. Which, in the end, would be the most productive for all parties.

> *Nothing. Too many generalisations for my taste. I would make non-technical arrangements in order to keep the number of unwelcome surprises like license violations low.*

You can only do that to a certain extent -- it really depends on what kind of stuff it's about.